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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/996,846	11/20/2001	Guangji Dong	295 P002	6407

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EXAMINER

CHANG, YEAN HSI

ART UNIT PAPER NUMBER

2835

DATE MAILED: 11/06/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/996,846

Applicant(s)

DONG, GUANGJI

Examiner

Yean-Hsi Chang

Art Unit

2835

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-33 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-33 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 29 April 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 5. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the "heat-conducting device" in claims 11 and 17-18 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Specification

2. The disclosure is objected to because of the following informalities: "a power supply heat-radiating plate (19)" on page 8, "the power supply heat-radiating plate (20)" on page 9, and "the power supply heat dissipation system (19)" on page 10 cause confusion.

Appropriate correction is required.

3. Claims 1, 11 and 23 are objected to because of the following informalities: A terminology claimed in a independent claim and in dependent claim(s) depending

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therefrom, for the first time should not be prefixed with a "the" or "said", such as: "the outer wall surface" in claims 1 and 11; "the power supply heat-absorbing unit", "the high power transistors", and "said power supply unit" in claim 11. The "claim 1" in line 1 of claim 23 is believed to be "claim 11". Appropriate correction is required.

Claim Rejections - 35 USC § 102

4. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

5. Claims 1-4, 6 and 8-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheon (US 5,731,954).

Cheon teaches a microcomputer heat dissipation system comprising:

- Heat absorbing units (12 and 30, fig. 1) (claim 1)
- Heat-generating electrical components (8 and 28, fig. 1) (claim 1)
- A fluid circulating unit (P, fig. 2) including a pump (P, fig. 2) (claims 1 and 2)
- A heat-radiating pipe (66, fig. 2) (claim 1)
- A heat-radiating plate (42, fig. 1) disposed on the outer surface of a side wall of the chassis (see fig. 1), including a heat-dissipating structure (44, fig. 1) (claims 1, 8 and 10)
- A chassis (7, fig. 1) (claim 1)

- Wherein the pump is securely mounted inside the chassis by shock-absorbent coils (94, fig. 5) (claim 3)
- Wherein the heat-absorbing units are constructed as a sealed hollow cavity (22, fig. 2) provided with an inlet (18, fig. 2) and an outlet (20, fig. 2) for the fluid and with one heat-absorbing face (14, fig. 1) being bonded to the heat-generating element (claim 4)
- Wherein the heat-absorbing units are disposed in communication with the fluid circulating unit via series connection (see fig. 2) (claim 6)
- Wherein the heat-radiating plate can be attached to the chassis through a mounting support (50, fig. 1), with the heat-circulating pipe passing through the wall of the chassis (see fig. 1) (claim 9)

6. Claims 11-20, 22, 24-28 and 30-33 are rejected under 35 U.S.C. 102(b) as being anticipated by Cheon.

Cheon teaches a microcomputer heat dissipation system comprising:

- A power supply heat dissipation system (left on 6, fig. 2) in a chassis (7, fig. 1), comprising:
 - High power transistors (28, fig. 1) soldered to a circuit board of a power supply unit (6, fig. 1) (Claims 11 and 13-16)
 - A heat-absorbing unit (30, fig. 1) (claim 11)

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- A heat-conducting device (29, fig. 1) to which the high power transistor is bonded, being connected to a heat-radiating plate (26, fig. 1) (claims 11-12 and 17-18)
- A circulation-based heat dissipation system (see fig. 1) in the chassis, comprising:
 - A heat-absorbing unit (12, fig. 1) (claim 11)
 - Heat-generating electrical elements (8, fig. 1) (claim 11)
 - A fluid circulating unit (P, fig. 2) including a feed pump (P, fig. 2) which could be enclosed in a shock-absorbing casing having two layers (claims 11 and 19)
 - A heat-radiating pipe (66, fig. 2) being of metal (see col. 5, lines 8-11; 64 is part of 66) (claims 1 and 24)
 - A heat-radiating plate (42, fig. 1) being attached to the outer surface of a side wall of the chassis (see fig. 1), including a heat-dissipating structure (44, fig. 1) (claims 11 and 25)
- Wherein the heat-absorbing units are constructed as a sealed hollow cavity (22, fig. 2) provided with an inlet (18, fig. 2) and an outlet (20, fig. 2) for the fluid and with one heat-absorbing face (14, fig. 1) being bonded to the heat-generating component (claims 20 and 27)
- Wherein the heat-absorbing units are disposed in communication with the fluid circulating unit via series connection (see fig. 2) (claim 22)

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- Wherein the heat-radiating pipe is bonded to the heat-radiating plate (see fig. 1) (claim 26)
- Wherein the pump is securely mounted inside the chassis by shock-absorbing device (94, fig. 5) (claim 28)
- Wherein the heat-radiating plate is mounted on a mounting support (50, fig. 2) mounted on the outer wall surface (see fig. 1) (claim 30)
- Wherein the mounting support has a recess (not numbered, fig. 2) with the heat-radiating pipe mounted in the recess (claims 31 and 32)
- Wherein the heat-radiating plate has metal heat-radiating ribs (44, fig. 2) on the outside surface (claim 33)

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claims 5, 7, 21, 23 and 29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cheon in view of Donahoe et al. (US 6,333,849 B1).

Cheon discloses the claimed invention except the heat-absorbing units being disposed in communication with the fluid circulating unit via series and parallel connection. However, Donahoe teaches heat-absorbing units (34, fig. 1; 81, fig. 7) being

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disposed in communication with the fluid circulating unit (30, fig. 1) via series and parallel connection. It would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the device of Cheon with the heat-absorbing units taught by Donahoe such that the influence between heat-generating components would be minimized.

Correspondence

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Yean-Hsi Chang whose telephone number is (703) 306-5798. The examiner can normally be reached on 07:30-16:00.

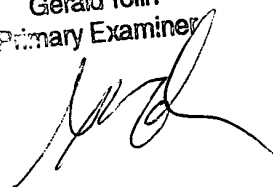
If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Darren Schuberg can be reached on (703) 308-4815. The fax phone number for the organization where this application or proceeding is assigned is (703) 305-3431 for regular communications and for After Final communications. There are RightFAX numbers and provide the fax sender with an auto-reply fax verifying receipt by the USPTO: Before-Final (703-872-9318) and After-Final (703-872-9319).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 305-8558.

Application/Control Number: 09/996,846
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Yean-Hsi Chang
Patent Examiner
Art Unit: 2835
November 1, 2002

Gerald Tolin
Primary Examiner

A handwritten signature in black ink, appearing to be 'G. Tolin', written over the printed name and title.